

# The variety show

ANPR is now well established in the sector, and as software engines and hardware components such as digital cameras evolve further, high levels of quality can be offered for a huge range of traffic management applications

**A** NPR technology is used in many locations around the globe for a variety of purposes, encompassing anything from gathering statistics to automatic toll collection systems.

Macq Electronique offers a complete solution for reliable number plate capture, combining the latest camera, lens, filter and illumination technology to capture clear number plate images 24 hours a day.

## AUTOMATIC TOLL COLLECTION

Automatic toll collection based on ANPR relies on a system that eliminates toll booths by using video imaging to record road usage by individual vehicles. The plate number is automatically taken from the image and the data gathered by the system is relayed to central toll transaction processors, which forward information to a system that calculates, creates and distributes bills.

In 2001, a shadow tolling system was installed on the Belgian highways E25 (Liege – Luxembourg) and A8 (Brussels – Lille). The ANPR system reads on average 100,000 vehicles a day without disturbing traffic.



↑ Totem is an easy to set up mobile ANPR system



↑ Mobile ANPR linked to portable VMS can be a valuable warning system for areas such as work zones

## TRAVEL TIME ESTIMATION

One recent project in the French valley of l'Oisans has shown that the provision of travel time information reduces driver stress and increases driver comfort, with concomitant road safety benefits.

Data on travel times is obtained by measuring the time taken for vehicles to travel between points on the road. Journey times between two points can be increased by factors that are unrelated to traffic conditions, for example, if the driver stops for a break. To reduce the influence of such events on the calculated travel time, data for short distances can be used – for instance, taking measurements between consecutive entry and exit points. Macq's travel time estimation solution can be fixed or mobile.

Road safety is a key issue for the whole traffic industry. Excessive speeds while entering work zones can cause accidents. Macq recently developed a warning information system for the French motorway company Sanef. The solution is based on an ANPR system coupled with a speed measuring radar, which provides a

personalized real-time display of speed and number plate on a PVMS. The Totem system is mobile, portable, safe and easily set up, and can be adapted simply to any VMS.

Under normal traffic conditions, on Autoroute A1, France (Paris to Lille direction), the efficiency of Totem was demonstrated on two separate work zones. A reduction of speed of approximately 20% was recorded in zones under surveillance, as well as the removal of recorded speeds above 130km/h.

French motorway operator Cofiroute recently installed a system to measure average speed and vehicle interdistance on its network. In cases of excessive speed or tailgating, the plate of the concerned vehicle and a safety message are displayed on the roadside VMS. As a result, the number of vehicles exceeding the maximum speed limit dropped from 60% to 28% (eight months after the experiment started).

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